

Minikube

In the context of DevOps, Minikube is a lightweight, single-node Kubernetes cluster tool used for local development and testing, allowing developers to experiment with Kubernetes features without the complexities of a full-fledged cluster.

=> MINIKUBE

```
--> curl -LO
```

```
https://dl.k8s.io/release/v1.32.0/bin/linux/amd64/kubectl sudo
```

```
install -o root -g root -m 0755 kubectl /usr/local/bin/kubectl
```

```
--< --> chmod +x kubectl mkdir
```

```
-p ~/.local/bin mv ./kubectl
```

```
~/.local/bin/kubectl
```

```
--< kubectl version --
```

```
client
```

```
-->
```

```
curl -LO
```

```
https://github.com/kubernetes/minikube/releases/latest/download/minikubelinux-  
amd64
```

```
sudo install minikube-linux-amd64 /usr/local/bin/minikube && rm minikube-  
linuxamd64
```

```
--< minikube
```

```
start
```

docker ps (check if container is running) kubectl

get node

kubectl get pod (No resources found) kubectl

get pod -o wide (No resources found)

minikube status kubectl get deploy kubectl

get replica

JENKINS pipeline

```
pipeline {
```

```
    agent any
```

```
    tools {
```

```
        maven 'Maven'
```

```
    }
```

```
    stages {
```

```
        stage('SCM') {
```

```
            steps {
```

```
                git branch: 'main', url:
```

```
'https://github.com/NavinkumarD/DevOps-
```

```
1.git'
```

```
                bat 'dir' // Check directory structure
```

```
            }
        }
    }
}
```

```
}  
}
```

```
stage('Build') {  
  steps {  
    dir('simple-web-app') {  
      bat 'mvn clean install'  
    }  
  }  
}
```

```
stage('Build to Images') {  
  steps {  
    dir('simple-web-app') { // Ensure we  
are in the correct directory  
      bat 'docker build -t  
22csl258/mysimplewebapplication.'  
    }  
  }  
}
```

```
stage('Push to Hub') {  
  steps {  
    script {
```

```
docker.withRegistry('https://index.docker.io/v1
/', 'docker-hub') {

    docker.image('22csl258/mysimplewebapplicat
ion').push('latest')
        }
    }
}
}
```